

Omega-3 in fish: How eating fish helps your heart

 If you're worried about heart disease — whether you want to avoid it, or you already have it and want to get healthier — eating one to two servings of fish a week could reduce your risk of dying of a heart attack by a third or more. The touted heart-health benefits of eating fish, especially fattier fish like salmon, aren't new. Doctors have long recognized that something in fish, possibly fats called omega-3 fatty acids, appears to reduce your risk of dying from heart disease. The American Heart Association for many years has recommended that people eat fish that are rich in omega-3 fatty acids at least twice a week. Donald Hensrud, M.D., chair of Mayo Clinic's Division of Preventive Medicine and associate professor of preventive medicine and nutrition, shares his insights here about omega-3 and eating fish for a healthy heart. In addition to the positive benefits of omega-3 and eating fish to reduce heart disease risk, Dr. Hensrud talks about the concern that some fish may contain significant amounts of contaminants, such as mercury. The contaminant concern has led to a dilemma: Should you eat more omega-3-rich fish for a healthier heart, or avoid fish because of the possible contaminants, such as mercury, in fish? Now, two large federally sponsored studies have both come to the same general conclusion: When it comes to a healthier heart, the benefits of eating fish usually outweigh the possible risks of exposure to contaminants. One study released in the Journal of the American Medical Association found that those who ate fish might reduce their risk of dying from heart disease by a third, and their overall mortality was 17 percent lower. The other study released by the Institute of Medicine, which advises the federal government on health policy, wasn't as strong in its endorsement. However, it indicated that eating seafood appears to promote heart health.

 Dr. Hensrud, when it comes to heart disease, is eating fish a smart thing to do? In general, yes, and both of these recent reports support that. Consuming one to two servings a week of fish, particularly fatty fish, appears to reduce the risk of heart disease and particularly sudden cardiac death. The health benefits of fish also apply to women who are or may become pregnant as well as to children, but both of these groups should limit their consumption. What's in fish that appears to be so good for the heart, and how does it work? Fish contain unsaturated fatty acids, which, when substituted for saturated fatty acids such as is contained in meat, may lower serum cholesterol. But the main beneficial component appears to be omega-3 fatty acids in fatty fish. Omega-3 fatty acids have many potential beneficial effects including improving cognitive function in developing children, decreasing triglycerides, lowering blood pressure, reducing blood clotting, enhancing immune function, and possibly others. However, the strongest benefit from omega-3 fatty acids is reducing the risk of sudden cardiac death, which appears to be due to decreasing the risk of abnormal heart rhythms. The heart-healthy benefits of fish have been discussed before. Do these two latest studies help clarify the situation? How so? One of these reports supports the heart-health benefits of eating fish by examining some of the best studies and estimating the combined effects of these studies. This study estimated that regular fish consumption probably reduced the risk of stroke and had an even stronger effect on reducing the risk of dying from heart disease. The other report was a review of studies by the Institute of Medicine that looked at the overall benefits vs. risks of seafood consumption. This review also supported the benefits of seafood consumption for everyone, reaffirmed that women of childbearing age and children limit consumption and avoid certain fish, and had a number of recommendations for further education and research in this area. Does it matter what kind of fish I eat? Yes, fatty fish such as salmon, herring, and to a lesser extent tuna, contain the most omega-3 fatty acids and therefore the most benefit, but many types of seafood contain small amounts of omega-3 fatty acids. How much fish should I eat? In general, about 6 ounces (two 3-ounce servings) a week are recommended, with an emphasis on omega-3-rich fish. Women and children should limit consumption to no more than 6 ounces of canned tuna a week, no more than 12 ounces of most other fish, and avoid certain fish altogether (shark, swordfish and others). That's because women who are or can become pregnant and children are most susceptible to the potential effects of toxins in fish. How concerned should I be about possible risks of eating fish, such as mercury contamination? The main types of toxins in fish are mercury, dioxins and polychlorinated biphenyls (PCBs). The amount of toxins depends on the type of fish and where it is caught, and this is one area where we need more education. You should pay attention to the type of fish you eat, how much you eat, and other information such as the state advisories on the amount that can be safely consumed of specific types of locally caught fish. For example, each state issues advisories regarding the safe amount of locally caught fish that can be consumed. The major contaminant found in fish is mercury. This element occurs naturally in trace amounts in the environment. But industrial pollution can produce mercury that accumulates in lakes, rivers and oceans. Microorganisms in the water convert the mercury to a highly toxic form, called methyl mercury. Large, predatory fish — such as shark, tilefish, swordfish and king mackerel — tend to have higher levels of methyl mercury than do smaller fish because they're higher in the aquatic food chain. Small fish eat organisms that contain methyl mercury, and this contaminant is then stored in their bodies. Larger fish eat the smaller fish, gaining higher concentrations of the toxin. The longer a fish lives, the larger it grows and the more mercury it can collect. If you consume enough fish containing methyl mercury, the toxin can accumulate in your body as well. It can take weeks, months or even a year for your body to remove these toxins. Methyl mercury is particularly harmful to the development of the brain and nervous system of an unborn child and young children. For this reason, women who are pregnant or trying to become pregnant, nursing mothers, and children under age 12 need to limit the amount of fish they eat. The Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) report that for most people, however, the amount of mercury they consume by eating fish isn't a health concern. The two recent reports support and endorse that advice. I don't like fish. Can I get the same heart-health benefits by taking omega-3 fatty acid supplements? Or, do other foods offer the same heart-health benefits? For most people, the evidence supporting the heart-health benefits from fish are stronger than for supplements. However, people who have heart disease may benefit from supplements of omega-3 fatty acids and should discuss this with their doctor. Other non-fish food options that do contain some omega-3 fatty acids include flaxseed, flaxseed oil, walnuts, canola oil, soybeans and soybean oil. However, like with supplements, the evidence of heart-healthy benefits from eating these foods isn't as strong as it is from eating fish.

About the Author

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